

Remarks

It is believed that the following remarks attend to all rejections presented in the pending August 26, 2004 office action. New claims 27-31 are added, without new matter, as supported for example by paragraph [0372] of the instant application. Claim 10 is amended to clarify that the receiver then communicates environmental data to a third location, such as supported for example by paragraph [0372]. Claims 10-31 thus remain pending in the application, of which claims 10 and 16 are independent.

Claim Rejections under 35 U.S.C. § 104

Claims 10-13, 15-17, 19-20, 22, 23-26 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,643,608 ("Hershey") in view of U.S. Patent No. 4,745,564 ("Tennes"). Respectfully we disagree, since, among other reasons, Hershey and Tennes do not teach or suggest each and every claim limitation of the claims.

The following is a quotation from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion of motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Amended claim 10 requires the following step elements in a method for establishing product integrity after shipment from one location to another location:

- (A) attaching one or more smart sensors to the product,
- (B) monitoring environmental conditions of the product via the sensors and during shipment, wirelessly communicating the conditions from the sensors to a receiver at the second location, and
- (C) communicating the conditions from the receiver to a third location.

Hershey discloses a system for "collecting and analyzing" shipment parameter data that affects predicted statistical variables (e.g., life expectancy, warranty costs). Hershey, abstract.

The system is made up of a plurality of data collection subsystems for collecting shipment parameter data from a like plurality of articles within a container. A data analysis subsystem uses data from the data collection subsystems to adjust "the respective predicted statistical variables" of the articles. *Id*; see also *Hershey FIG. 2*.

Each of Hershey's data collection subsystems (12, 14, 16) attaches to one container and all data collection subsystems either communicate with one data analysis subsystem (20) or one location: "Data analysis subsystem 20 is coupled to receive the collective shipment data from the plurality of data collection subsystems..." *Hershey, col. 3, lines 4-6 (emphasis added)*.

Hershey does not, therefore, disclose, anywhere, the attachment of one or more sensors directly on the product or article, as required by claim 10. Hershey in fact teaches away from the invention by disclosing a data collection subsystem that includes (a) a container and (b) *multiple* sensors located *in the* container that contains the articles to be shipped. See *Hershey, col. 3, lines 17-67*. Hershey also never discloses that *one or more* sensors attach directly to articles within the containers, as required by step (A) of claim 10.

Moreover, it is telling that Hershey also does not teach step elements (B) and (C) of claim 10. For example, step (B) requires wireless communications at the second location to a receiver and step (C) requires communicating data from the receiver to a third location. Hershey does not, - by any reasonable measure – disclose wirelessly communicating data from *one or more sensors* to a *receiver* and then transmitting that data *from the receiver to a third location*. In figures 2 and 3 of *Hershey*, for example, a single data collection subsystem 20 is shown and that subsystem is either local to data collection subsystems 12, 14, 16 or it is remote from these subsystems. See *Hershey, col. 3, lines 4-16*. Hershey never discloses an intermediate receiver and communications that occur locally, at the second location (by wireless communications), and then remotely (e.g., over the Internet from the receiver to the third location), as claimed in claim 10 and for example described in paragraph [0372] in the present application (see "interrogating device 1620").

Tennes discloses impact detection apparatus that measures and records accelerations exceeding a predetermined threshold. Data stored in memory is read via a serial port. See Tennes abstract.

Accordingly, we first note that Tennes only discloses acceleration, and that acceleration is in three axes. Tennes, col. 2, lines 65-67. Tennes has no disclosure or teaching of wireless communications (step B above) nor of communicating the data to a third location (step C above).

The Examiner argues that motivation to combine Tennes with Hershey is "obvious" to one skilled in the art. Although we disagree, the combination of Tennes and Hershey nonetheless fails 35 U.S.C. §103 for several reasons: First, there still must be motivation or suggestions within Tennes/Hershey to modify the disclosures to render claim 10, since clearly (based on the above arguments) the combination of Tennes/Hershey does not teach the elements of claim 10 (as argued above, Hershey and/or Tennes do not disclose or suggest steps A-C). For the reasons set forth above, therefore, a combination of Tennes with Hershey not only does not teach or suggest the elements of claim 10, one cannot reasonably modify Tennes and/or Hershey to render claim 10 with likelihood of success.

Claims 11-13, 15 and new claims 27-31 depend from claim 1 and benefit from like arguments. But, these claims have additional features that patentably distinguish over Tennes and/or Hershey. For example, as noted above in connection with steps B and C, Tennes and Hershey thus clearly fail to disclose interrogating the sensors at the second location with the receiver before wirelessly communicating the data, as in claim 12. Claim 13 requires detecting acceleration at at least one of the sensors; noticeably claim 13 does not require triaxial acceleration data as in Tennes. In claim 15, temperature is monitored; but Tennes has no teaching or disclosure of temperature and only discusses acceleration; and Hershey mentions temperature but not "preset temperature guidelines" as in claim 15 nor the basic step elements of claim 10.

Briefly, new claims 27-31 are also not disclosed by Hershey and/or Tennes, including:

- attaching a plurality of *identical smart sensors*, as in claim 27;
- storing and time-tagging event occurrences that exceed performance specifications of the product, as in claim 29;
- attaching a plurality of accelerometers to the product, wherein the environmental conditions comprise impact of the product, as in claim 30; note for example that Tennes discloses only a single tri-axial accelerometer and not a plurality of separate attachment actions;
- sticking the sensors onto the product, as in claim 31.

Reconsideration of claims 10-13 and 15 are thus requested.

Independent claim 16 requires the following elements in a system for determining integrity of a product through shipment:

- (A) one or more smart sensors for attachment to the product and
- (B) an interrogating device, the sensors monitoring environmental conditions of the product during shipment and wirelessly communicating data about the conditions to the interrogating device during or after shipment, the interrogating device communicating the conditions over a network.

For the reasons outlined above, Tennes and/or Hershey fail to disclose, at least: attachment of *one or more* sensors to the product; wireless communications to an interrogating device and then communication to a third location over a network.

Claims 17, 19-20, 22, 23-26 depend from claim 16 and benefit from like arguments; but again these claims have features which patentably distinguish over Hershey and/or Tennes, including, at least:

- o the sensors comprise an accelerometer and the environmental conditions comprise acceleration, as in claim 19;
- o the environmental conditions comprising a preset temperature, as in claim 23;
- o a plurality of interrogating devices to capture the conditions during shipment and after shipment; Hershey simply fails to disclose inter-shipment monitoring (only a "destination" is shown in Hershey, FIG. 3).

Reconsideration of claims 16-17, 19-20, 22, 23-26 are thus requested.

Claim 18 stands rejected as being obvious in view of Hershey and Tennes in view of U.S. Patent No. 6,125,686 ("Haan"). We again disagree. For the reasons set forth above, Tennes and Hershey do not disclose the elements of claim 16, from which claim 18 depends. Haan too does not disclose these elements. Haan merely discloses a hand-held receiving unit but does not teach or suggest the other elements.

Reconsideration of claim 18 is thus requested.

Claim 14 stands rejected as being obvious in view of Hershey and Tennes in view of U.S. Patent No. 4,862,394 ("Thompson"). We again disagree. For the reasons set forth above, Tennes

and Hershey do not disclose the elements of claim 10, from which claim 14 depends. Thompson discloses only a drop height recorder, and also fails to disclose the elements of claim 10.

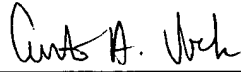
Reconsideration of claim 14 is thus requested.

We have thus argued each of the pending issues and rejections in the pending office action. Reconsideration and allowance of all claims are now requested. Other than the one month extension of time, it is believed that no fees are due in connection with this amendment. If any fee is due, please charge Deposit Account No. 12-0600.

We request that the Examiner contact the undersigned for a telephonic interview if any claims will still be rejected or if prosecution of the application may be expedited thereby.

Respectfully submitted,

LATHROP & GAGE.

By 
Curtis A. Vock, Reg. 38,356
4845 Pearl East Circle, Ste. 300
Boulder, Colorado 80301
720-931-3000
720-931-3001 (fax)